

Section 5.—Forest Administration, Conservation and Research

Subsection 1.—Federal Forestry Program

Administration.—The Federal Government is responsible for the protection and administration of the forest resources of the Yukon and Northwest Territories and of other federal lands such as the National Parks, forest experiment stations, military areas and Indian reserves. The Federal Government also administers the Canada Forestry Act which provides, among other things, authority for the operation of forest experiment stations and forest products laboratories.

The Act also authorizes the granting of federal assistance to the provinces to enable them to improve the management of their own forests. Under the Federal-Provincial Agreements signed under authority of the Act, seven of Canada's ten provinces have undertaken a forest inventory with federal financial assistance, and six provinces have reforestation agreements. The history of the Federal-Provincial Agreements and their relation to the Canada Forestry Act is described in a special article appearing in the 1956 Year Book, pp. 459-466. In 1957 the Federal Government broadened the implementation of the Canada Forestry Act by providing financial assistance to the provinces for forest fire protection. A total of \$5,000,000 is to be made available for this purpose during the next five years. Federal contributions will be applicable to capital expenditures, such as the cost of fire protection equipment and improvements, and of forest access roads, trails and buildings required for forest fire protection.

The Forestry Branch of the Department of Northern Affairs and National Resources has been continuing work on the aerial forest mapping of federally administered lands and other territories. For example, forest inventory maps were prepared from air photographs for portions of the Yukon and Northwest Territories and data were collected on the ground to support the interpretation of the photographs. The development of instrumental aids in forest photography and in interpretation is being continued by this Branch.

Forestry Research.—In the field of forestry the chief responsibility of the Federal Government is to carry out research in problems affecting the forests of Canada and their development, conservation and more effective utilization. To this end forest research and forest products research facilities have been expanded greatly throughout Canada during the past five years. The Forestry Branch of the Federal Department of Northern Affairs and National Resources conducts research in forest economics, silviculture, management, forest inventory methods, forest fire protection and in forest products. An extensive program of research is under way on the government experiment stations and on other lands, where an increasing proportion of the total effort is being expended in co-operation with provincial authorities and industry.

Research in silviculture and management has been concentrated on problems of regeneration, on growth and stand development, and on harvest cutting methods. A regeneration survey extending from the Rocky Mountains to the Atlantic Coast has provided information on the state of regeneration on cut-over and burned lands. This has been followed by intensive work of a more fundamental nature to assess the factors responsible for the success or failure of regeneration and tests of practical cutting methods, seed-bed treatments, and seeding and planting methods. Studies are made of the growth, yield and successional changes in the most important forest types. Systems of classifying forest sites are being devised to assess their effective growth, development and long-term productivity. Research in tree breeding is being carried on for artificial propagation by selection and development of superior strains. In forest management, research is concerned with the application of silviculture, regulation of cut, and protection in order to maintain forests at the highest production levels. Many of the studies in silviculture and forest management are conducted co-operatively with provincial forest services and wood-using industries.